

WHAT IS CLAIMED IS:

1. An information transmission apparatus comprising:
request analyzing means for receiving an instruction
5 including both a request for transmission of specific
information and an identifier from one of a plurality of
information processing apparatus connected with said
information transmission apparatus by way of a common
connection line, said identifier identifying said information
10 processing apparatus that has made the transmission request
and said plurality of information processing apparatus having
their respective identifiers, and for analyzing the specific
information to be transmitted and the identifier associated
with said instruction;

15 storage means for storing array data about arrays each
indicating a correspondence between one of a plurality of
different pieces of information to be transmitted and at least
an identifier identifying one of said plurality of information
processing apparatus;

20 information addition means for adding the identifier
associated with said instruction to the specific information
associated with said instruction by referring to said storage
means based on analysis results from said request analyzing
means; and

25 information transmission means for transmitting the
specific information to which the identifier is added to the
information processing device which has provided said
instruction to said information transmission apparatus.

30 2. The information transmission apparatus according to

Claim 1', wherein when said request analyzing means receives instructions indicating a request for transmission of identical specific information from two or more of said plurality of information processing apparatus, said information adding means adds two or more identifiers associated with said instructions to the identical specific information associated with said instructions.

3. The information transmission apparatus according to Claim 1, wherein when receiving an instruction indicating a request for transmission of specific information, said request analyzing means adds only an identifier associated with said instruction to said array data if a correspondence between the specific information associated with said instruction and at least one identifier is included in the array data stored in said storage means, and adds both identification information identifying the specific information and the identifier, which are associated with said instruction, to said array data if no correspondence between the specific information associated with said instruction and at least one identifier is included in the array data.

4. The information transmission apparatus according to Claim 1, wherein when transmitting two or more of different pieces of specific information, said information transmission means performs time division processing according to a number of different pieces of specific information to be transmitted and then transmit them in units of a predetermined transmission unit time.

5. The information transmission apparatus according to Claim 4, wherein when there is a change in the number of different pieces of specific information to be transmitted in units of the predetermined transmission unit time because of an instruction indicating an information transmission request which said request analyzing means newly receives, said information transmission means newly performs time division processing.

6. The information transmission apparatus according to Claim 1, wherein said information transmission means transmits image information about one frame in units of a predetermined transmission unit time.

7. The information transmission apparatus according to Claim 1, wherein said common connection line is a single cable.

8. The information transmission apparatus according to Claim 1, further comprising a hard disk for storing said plurality of different pieces of information that can be read and transmitted by said information transmission means.

9. An information transmission method comprising the steps of:

receiving an instruction including both a request for transmission of specific information and an identifier from one of a plurality of information processing apparatus connected with one another by way of a common connection line, said identifier identifying said information processing apparatus that has made the transmission request and said

plurality of information processing apparatus having their respective identifiers;

analyzing the specific information to be transmitted and the identifier associated with said instruction;

5 storing array data about arrays each indicating a correspondence between one of a plurality of different pieces of information and at least an identifier identifying one of said plurality of information processing apparatus;

adding the identifier associated with said instruction
10 to the specific information associated with said instruction by referring to said array data based on analysis results obtained in said step of analyzing; and

transmitting the specific information associated with said instruction to which the identifier is added to the
15 information processing device which has provided said instruction.